Project II
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UNITED STATES DEPARTMENT OF AGRICULTURE

BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

FOREST INSECT INVESTIGATIONS

MEMORANDUM FOR MR. J. M. MILLER

Control Project. Los Posados State Park and Surrounding Area, Napa Co., California

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J. W. Bongberg
Berkeley, California
February 3, 1939

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MEMORANDUM FOR MR. J. M. MILLER

Control Project. Los Posados State Park and Surrounding Area, Napa Co., Calif.

Reference is made to the memorandum for State Forester, Mr. M. B. Pratt, by K. A. Salman, Berkeley, California, January 13, 1939, where recommendations were made for insect control on the Los Posados State Park and adjoining private holdings.

Arrangements were made between the U. S. Bureau of Entomology and Plant Quarantine and the California State Division of Forestry whereby the Bureau would mark the infested trees for a subsequent control operation by the State Division of Forestry.

Assistant Ranger Francis W. Gowen of the State Division of Forestry and J. W. Bongberg of the Bureau of Entomology and Plant Quarantine started the marking of infested trees on the area January 23, 1939, and completed the job of spotting January 24, 1939.

The infestation unit boundary was determined during the spotting. For the most part, the timber boundary determined the edge of the infestation unit. On the south and west sides, however, the timber type, consisting chiefly of Douglas fir, was considered to form a boundary to the main portion of the infestation. A few scattered trees, all marked for treatment, were all that could be found in the Douglas fir timber type.

A complete coverage of the area and a marking of infested trees showed that insect conditions were very much as had been predicted. The entire area within the State Park and all of the surrounding timbered area was examined. The infestation was found centered in the pure ponderosa pine type along the south and west side and edge of the Park. Thirty-four trees harboring overwintering broods, totalling 5,450 board feet, were marked on approximately 250 acres within the infestation unit. 94% of these trees were found within the 162 acres of pure pine type. 85% of the infested trees were found in groups of from 2-7 trees, all within the pure pine type. The remaining trees in the mixed PP-DF type were single and widely scattered. Copies of a map were prepared showing the boundaries of the control area and the location of each infested tree.

Judging from basal examinations, the western pine beetle was responsible for the death of 97% of the trees. One tree was found infested with flathead borer broods. A few attacks by the mountain pine beetle were found in infested poles, but for the most part, they were unsuccessful.

To secure a more detailed picture of insect composition in the infested area, seven trees were felled and the complete bole examined. From these trees it was found that the western pine beetle was the primary insect species involved in most of the infestation. In the trees examined,

green tops were prevalent. However, older attacks of the engraver beetle (Ips sp.) were found. It is felt that previous topkilling was in part responsible for conditions favoring the build up of the western pine beetle and the resulting flare up or grouping tendency.

Because of the demand for wood at the SRA camp located within the State Park and the relatively small size of the infested trees, the pit burning method of control was recommended, because of the advanced brood stages. Bark on the infested trees can easily be removed from the wood. Since it was felt that many of the trees harbored broods of the engraver beetle in the tops, it was recommended that the tops be bucked into short lengths and burned without removing the bark. This procedure will prevent any mature broods from escaping during control operations. All infested poles were marked for treatment. A thorough job in treating infested bark should materially reduce subsequent loss on the area.

The importance of treating the infested material at once was strongly emphasized. The Berkeley office will be notified at the completion of the control work.

Infestation Conditions in Cobb Creek Canyon, Lake County, California.

A general reconnaissance of the Cobb Creek Canyon, Lake County, California, was made January 24, 1939 by a party consisting of State Forester M. B. Pratt, Mr. Strickland, Ranger Hugo Lindbloom, and J. W. Bongberg. Following is a brief account of insect conditions found on the area.

A sudden increase of insect activities appears to have occurred on part of the area. Previous losses were not evident and the reason for this sudden increase in insect population or activities was not apparent. Groups of trees, up to 25 in number, made up practically all of the loss. Apparently the western pine beetle is involved in the infestation of most of the trees. The grouping tendencies were found in scattered places. No scattered or single tree infestations were seen. It is felt that the conditions found here were very similar to those existing in and around the Los Posados State Park. It is felt that if arrangements could be made, before broods emerge, these groups of trees should be treated to reduce the possibility of additional loss. A more detailed reconnaissance is necessary to determine if infestation conditions warrant control, the extent of the infestation, the values involved, and other pertinent information.

J. W. Bongberg
Junior Entomologist

Berkeley, California
February 3, 1939.

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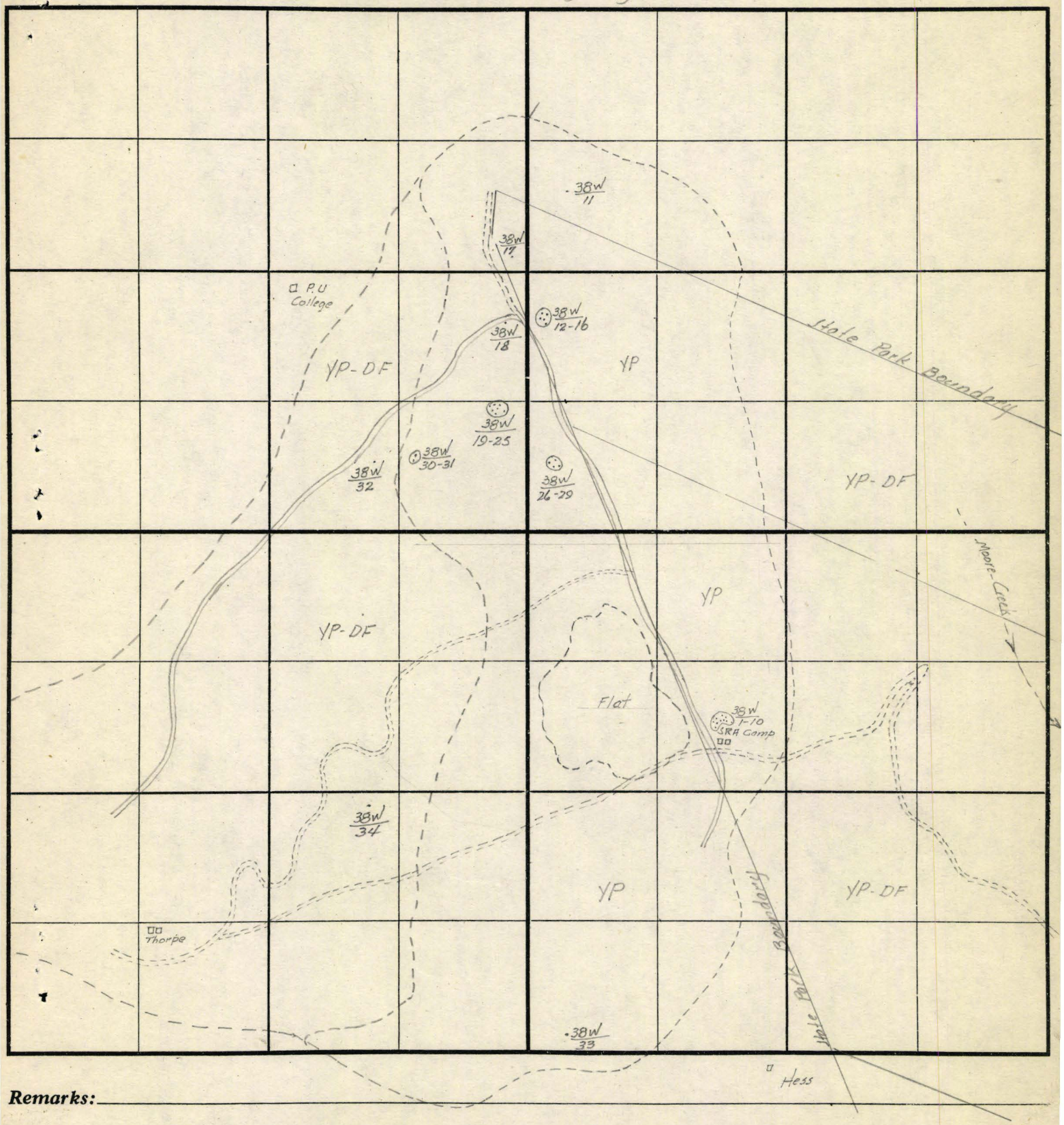
Elev. - 1700' - 1800'

TREATING PLAT

Project Area Los Pasados State Pk. **Unit** Napa Co., Calif. **Camp No.** 8" = 1 Mi.

Date 1/24/39. **Compass man** Gowen - Bongberg **T.** 8 N **R.** 5 W **Sec.**



Remarks:

Location of infested trees marked for treatment. Los Pasados Control Project 1/23-24/39